Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-69 (Cancelled).

70. (Currently Amended) A method for treating a mammal having asthma and non-invasive fungus-induced rhinosinusitis, said method comprising mucoadministering to said mammal a formulation in an amount, at a frequency, and for a duration effective to reduce or eliminate [[said asthma and]] said non-invasive fungus-induced rhinosinusitis and symptoms of said asthma, said formulation comprising an antifungal agent.

71. (Previously Presented) The method of claim 70, wherein said mammal is a human.

72. (Previously Presented) The method of claim 70, wherein said mammal is nonatopic.

73. (Previously Presented) The method of claim 70, wherein said mammal is immunocompetent.

74. (Previously Presented) The method of claim 70, wherein said asthma is chronic.

75. (Previously Presented) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis is chronic.

76. (Previously Presented) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis is characterized by polyp formation or polypoid change.

77. (Previously Presented) The method of claim 70, wherein said mucoadministration comprises direct mucoadministration.

78. (Previously Presented) The method of claim 70, wherein said method comprises mucoadministering said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

79. (Previously Presented) The method of claim 70, wherein said method comprises mucoadministering said formulation to at least a portion of the airways of said mammal.

80. (Previously Presented) The method of claim 70, wherein said method comprises mucoadministering said formulation to at least a portion of the lung airways of said mammal.

81. (Previously Presented) The method of claim 70, wherein said formulation is in a solid form.

82. (Previously Presented) The method of claim 70, wherein said formulation is in a liquid form.

83. (Previously Presented) The method of claim 70, wherein said formulation is in an aerosol form.

84. (Previously Presented) The method of claim 70, wherein said formulation is in a form selected from the group consisting of a powder, crystalline substance, gel, paste, ointment, salve, cream, solution, suspension, partial liquid, spray, nebulae, mist, atomized vapor, aerosol, and tincture.

85. (Previously Presented) The method of claim 70, wherein said mucoadministration comprises irrigating at least a portion of the nasal-paranasal anatomy of said mammal with a liquid form of said formulation.

86. (Previously Presented) The method of claim 70, wherein said mucoadministration comprises applying an aerosol form of said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

87. (Previously Presented) The method of claim 70, wherein said mucoadministration comprises applying a powder form of said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

88. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises a macrolide.

89. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises an azole.

90. (Previously Presented) The method of claim 70, wherein said antifungal agent interpolates fungal cell wall components.

91. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises a sterol inhibitor.

92. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises an antifungal agent selected from the group consisting of amphotericin B, ketoconazole, itraconazole, saperconazole, voriconazole, flucytosine, miconazole, fluconazole, griseofulvin, clotrimazole, econazole, terconazole, butoconazole, oxiconazole, sulconazole, ciclopirox

olamine, haloprogin, tolnaftate, naftifine, terbinafine hydrochloride, morpholines, nystatin, natamycin, butenafine, undecylenic acid, Whitefield's ointment, propionic acid, and caprylic acid.

93. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises an antifungal agent selected from the group consisting of amphotericin B, ketoconazole, itraconazole, saperconazole, and voriconazole.

94. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises amphotericin B.

95. (Previously Presented) The method of claim 70, wherein said antifungal agent comprises itraconazole.

96. (Previously Presented) The method of claim 70, wherein said formulation comprises a pharmaceutically acceptable aqueous vehicle.

97. (Previously Presented) The method of claim 96, wherein said formulation comprises about 0.01 ng to about 1000 mg of said antifungal agent per liter.

98. (Previously Presented) The method of claim 96, wherein said effective amount comprises about 0.01 mL to about 1 L of said formulation per nostril of said mammal.

99 (Previously Presented) The method of claim 96, wherein said effective amount comprises about 5 mL to about 100 mL of said formulation per nostril of said mammal.

100. (Previously Presented) The method of claim 96, wherein said effective amount comprises about 20 mL of said formulation per nostril of said mammal.

101. (Previously Presented) The method of claim 96, wherein said formulation comprises about 1 ng to about 500 mg of said antifungal agent per liter.

102. (Previously Presented) The method of claim 96, wherein said formulation comprises about 100 mg of said antifungal agent per liter.

103. (Previously Presented) The method of claim 70, wherein said formulation comprises a plurality of antifungal agents.

104. (Previously Presented) The method of claim 70, wherein said effective amount of said formulation comprises about 0.01 ng to about 1000 mg of said antifungal agent per kg of body weight of said mammal.

105. (Previously Presented) The method of claim 70, wherein said effective amount of said formulation comprises about 1 ng to about 500 mg of said antifungal agent per kg of body weight of said mammal.

106. (Previously Presented) The method of claim 70, wherein said effective amount of said formulation remains constant during said effective duration.

107. (Previously Presented) The method of claim 70, wherein said effective frequency of said mucoadministration is from about four times a day to about once every other week.

108. (Previously Presented) The method of claim 70, wherein said effective frequency of said mucoadministration is from about twice a day to about once a week.

109. (Previously Presented) The method of claim 70, wherein said effective frequency of said mucoadministration is more frequent than once a day.

110. (Previously Presented) The method of claim 70, wherein said effective frequency of said mucoadministration is more frequent than once a week.

111. (Previously Presented) The method of claim 70, wherein said effective duration is greater than about 7 days.

112. (Previously Presented) The method of claim 70, wherein said effective duration is greater than about 14 days.

113. (Previously Presented) The method of claim 70, wherein said effective duration is greater than about 30 days.

114. (Previously Presented) The method of claim 70, wherein said effective duration is greater than about 60 days.

115. (Previously Presented) The method of claim 70, wherein said effective duration is greater than about 90 days.

116. (Previously Presented) The method of claim 70, wherein said formulation comprises a compound selected from the group consisting of pharmaceutically acceptable aqueous vehicles, pharmaceutically acceptable solid vehicles, mucolytic agents, antibacterial agents, anti-inflammatory agents, immunosuppressants, dilators, vaso-constrictors, steroids, and therapeutic compounds.

117. (Previously Presented) The method of claim 70, wherein said method comprises administering to said mammal a second formulation.

118. (Previously Presented) The method of claim 117, wherein said second formulation comprises a compound selected from the group consisting of antifungal agents, pharmaceutically acceptable aqueous vehicles, pharmaceutically acceptable solid vehicles, mucolytic agents, antibacterial agents, anti-inflammatory agents, immunosuppressants, dilators, vaso-constrictors, steroids, and therapeutic compounds.

119. (Currently Amended) The method of claim 70, said method comprising, after said mucoadministration, prophylactically mucoadministering to said mammal a prophylactic formulation in an amount, at a frequency, and for a duration effective to prevent [[said asthma or]] said non-invasive fungus-induced rhinosinusitis or symptoms of said asthma, said prophylactic formulation comprising an antifungal agent.

120. (Previously Presented) The method of claim 119, wherein said prophylactic mucoadministration comprises direct mucoadministration.

121. (Cancelled).

122. (Currently Amended) A method for treating a mammal having asthma and non-invasive fungus-induced rhinosinusitis, said method comprising the steps of:

a) identifying said mammal, and

b) mucoadministering a formulation in an amount, at a frequency, and for a duration effective to reduce or eliminate [[said asthma and]] said non-invasive fungus-induced rhinosinusitis and symptoms of said asthma, said formulation comprising an antifungal agent.

123. (Previously Presented) The method of claim 122, wherein said identifying comprises diagnosing.

Claims 124-126 (Cancelled).

127. (Previously Presented) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by the presence of a polyp.

128. (Previously Presented) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by the presence of allergic mucus.

129. (Previously Presented) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by eosinophilia.

Claims 130-134 (Cancelled).

135. (Previously Presented) The method of claim 122, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by the presence of a polyp.

136. (Previously Presented) The method of claim 122, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by the presence of allergic mucus.

137. (Previously Presented) The method of claim 122, wherein said non-invasive fungus-induced rhinosinusitis is accompanied by eosinophilia.

Claims 138-142 (Cancelled).

143. (Previously Presented) The method of claim 70, wherein said mucoadministration begins during a period noncoincident with an intraoperative period, said intraoperative period being the time during a nasal surgery.

144. (Previously Presented) The method of claim 143, wherein said mammal had a nasal surgery before said mucoadministration.

145. (Previously Presented) The method of claim 143, wherein said mammal was nasal surgery-free before said mucoadministration.

Claims 146-193 (Cancelled).

194. (Previously Presented) The method of claim 122, wherein said mammal is a human.

195. (Previously Presented) The method of claim 122, wherein said mammal is nonatopic.

196. (Previously Presented) The method of claim 122, wherein said mammal is immunocompetent.

197. (Previously Presented) The method of claim 122, wherein said mucoadministration comprises direct mucoadministration.

198. (Previously Presented) The method of claim 122, wherein said method comprises mucoadministering said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

199. (Previously Presented) The method of claim 122, wherein said method comprises mucoadministering said formulation to at least a portion of the airways of said mammal.

200. (Previously Presented) The method of claim 122, wherein said method comprises mucoadministering said formulation to at least a portion of the lung airways of said mammal.

201. (Previously Presented) The method of claim 122, wherein said formulation is in a solid form.

202. (Previously Presented) The method of claim 122, wherein said formulation is in a liquid form.

203. (Previously Presented) The method of claim 122, wherein said formulation is in an aerosol form.

204. (Previously Presented) The method of claim 122, wherein said formulation is in a form selected from the group consisting of a powder, crystalline substance, gel, paste, ointment, salve, cream, solution, suspension, partial liquid, spray, nebulae, mist, atomized vapor, aerosol, and tincture.

205. (Previously Presented) The method of claim 122, wherein said mucoadministration comprises irrigating at least a portion of the nasal-paranasal anatomy of said mammal with a liquid form of said formulation.

206. (Previously Presented) The method of claim 122, wherein said mucoadministration comprises applying an aerosol form of said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

207. (Previously Presented) The method of claim 122, wherein said mucoadministration comprises applying a powder form of said formulation to at least a portion of the nasal-paranasal anatomy of said mammal.

208. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises a macrolide.

209. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises an azole.

210. (Previously Presented) The method of claim 122, wherein said antifungal agent interpolates fungal cell wall components.

211. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises a sterol inhibitor.

212. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises an antifungal agent selected from the group consisting of amphotericin B, ketoconazole, itraconazole, saperconazole, voriconazole, flucytosine, miconazole, fluconazole, griseofulvin, clotrimazole, econazole, terconazole, butoconazole, oxiconazole, sulconazole, ciclopirox olamine, haloprogin, tolnaftate, naftifine, terbinafine hydrochloride, morpholines, nystatin, natamycin, butenafine, undecylenic acid, Whitefield's ointment, propionic acid, and caprylic acid.

213. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises an antifungal agent selected from the group consisting of amphotericin B, ketoconazole, itraconazole, saperconazole, and voriconazole.

214. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises amphotericin B.

215. (Previously Presented) The method of claim 122, wherein said antifungal agent comprises itraconazole.

216. (Previously Presented) The method of claim 122, wherein said formulation comprises a pharmaceutically acceptable aqueous vehicle.

217. (Previously Presented) The method of claim 216, wherein said formulation comprises about 0.01 ng to about 1000 mg of said antifungal agent per liter.

218. (Previously Presented) The method of claim 216, wherein said effective amount comprises about 0.01 mL to about 1 L of said formulation per nostril of said mammal.

219. (Previously Presented) The method of claim 216, wherein said effective amount comprises about 5 mL to about 100 mL of said formulation per nostril of said mammal.

220. (Previously Presented) The method of claim 216, wherein said effective amount comprises about 20 mL of said formulation per nostril of said mammal.

221. (Previously Presented) The method of claim 216, wherein said formulation comprises about 1 ng to about 500 mg of said antifungal agent per liter.

222. (Previously Presented) The method of claim 216, wherein said formulation comprises about 100 mg of said antifungal agent per liter.

223. (Previously Presented) The method of claim 216, wherein said formulation comprises a plurality of antifungal agents.

224. (Previously Presented) The method of claim 122, wherein said effective amount of said formulation comprises about 0.01 ng to about 1000 mg of said antifungal agent per kg of body weight of said mammal.

225. (Previously Presented) The method of claim 122, wherein said effective amount of said formulation comprises about 1 ng to about 500 mg of said antifungal agent per kg of body weight of said mammal.

226. (Previously Presented) The method of claim 122, wherein said effective amount of said formulation remains constant during said effective duration.

227. (Previously Presented) The method of claim 122, wherein said effective frequency of said mucoadministration is from about four times a day to about once every other week.

228. (Previously Presented) The method of claim 122, wherein said effective frequency of said mucoadministration is from about twice a day to about once a week.

229. (Previously Presented) The method of claim 122, wherein said effective frequency of said mucoadministration is more frequent than once a day.

230. (Previously Presented) The method of claim 122, wherein said effective frequency of said mucoadministration is more frequent than once a week.

231. (Previously Presented) The method of claim 122, wherein said effective duration is greater than about 7 days.

232. (Previously Presented) The method of claim 122, wherein said effective duration is greater than about 14 days.

233. (Previously Presented) The method of claim 122, wherein said effective duration is greater than about 30 days.

234. (Previously Presented) The method of claim 122, wherein said effective duration is greater than about 60 days.

235. (Previously Presented) The method of claim 122, wherein said effective duration is greater than about 90 days.

236. (Previously Presented) The method of claim 122, wherein said formulation comprises a compound selected from the group consisting of pharmaceutically acceptable aqueous vehicles, pharmaceutically acceptable solid vehicles, mucolytic agents, antibacterial agents, anti-inflammatory agents, immunosuppressants, dilators, vaso-constrictors, steroids, and therapeutic compounds.

237. (Previously Presented) The method of claim 122, wherein said method comprises administering to said mammal a second formulation.

238. (Previously Presented) The method of claim 237, wherein said second formulation comprises a compound selected from the group consisting of antifungal agents, pharmaceutically acceptable aqueous vehicles, pharmaceutically acceptable solid vehicles, mucolytic agents, antibacterial agents, anti-inflammatory agents, immunosuppressants, dilators, vaso-constrictors, steroids, and therapeutic compounds.

239. (Previously Presented) The method of claim 122, wherein said mucoadministration begins during a period noncoincident with an intraoperative period, said intraoperative period being the time during a nasal surgery.

240. (Previously Presented) The method of claim 239, wherein said mammal had a nasal surgery before said mucoadministration.

241. (Previously Presented) The method of claim 239, wherein said mammal was nasal surgery-free before said mucoadministration.

242. (Currently Amended) The method of claim 122, said method comprising, after said mucoadministration, prophylactically mucoadministering to said mammal a prophylactic formulation in an amount, at a frequency, and for a duration effective to prevent [[said asthma or]] said non-invasive fungus-induced rhinosinusitis or symptoms of said asthma, said prophylactic formulation comprising an antifungal agent.

243. (Previously Presented) The method of claim 242, wherein said prophylactic mucoadministration comprises direct mucoadministration.

Claims 244-365 (Cancelled).

366. (New) The method of claim 70, wherein said non-invasive fungus-induced rhinosinusitis comprises the presence of allergic mucus.

367. (New) The method of claim 122, wherein said non-invasive fungus-induced rhinosinusitis comprises the presence of allergic mucus.